


Review Essay

The understated turn: Emerging interests and themes in Canadian posthumanist geography

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Key Messages

- Posthumanism is a broad, understated, yet strongly emerging tradition in Canadian geography.
- Five key empirical fields are emerging, each demonstrating how posthumanism can be applied to Canadian empirical contexts.
- Future research attention could be paid to a range of issues in Canadian geography and beyond, including the geographies of geographical knowledge production.

Posthumanist geography is a broad tradition incorporating a range of intersecting theoretical approaches including assemblage theory, actor-network theory, new materialisms, affect theory, neo-vitalism, political ecology, post-phenomenology, and non-representational theory—as well as contributions from a number of theoretically progressive subject fields such as new mobilities, relational thinking, sensory and performance studies, biosocial and biopolitics studies, and science and technology studies. The specificities of and differences between these traditions and fields aside, common to posthumanism is a scepticism of human exceptionalism. Here, the sovereign human subject is decentred, and in doing so, posthumanist work acknowledges the agencies of a full array of human and non-human actors and forces. Recognizing that there are important “geographies to (the discipline of) geography,” this paper identifies and reviews some of the key posthumanist interests and themes that have emerged over recent years quietly and organically in Canadian geography, namely posthumanist (i) Indigenous geographies; (ii) animal and natures geographies; (iii) health, wellbeing, and disability geographies; (iv) affective and atmospheric geographies; and (v) non-representational and creative methodologies. The paper concludes with some thoughts on the nature and strengths of Canadian posthumanist geography, and on some possibilities for future advancement.

Keywords: posthumanism, non-representational theories, assemblage, affect, methodologies

La géographie posthumaniste est une vaste tradition qui intègre une série d'approches

La géographie posthumaniste est une vaste tradition qui intègre une série d'approches théoriques croisées, notamment la théorie de l'assemblage, la théorie de l'acteur-réseau, les nouveaux matérialismes, la théorie des

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« affects », le néo-vitalisme, l'écologie politique, la post-phénoménologie et la théorie de la non-représentation, ainsi que les contributions d'un certain nombre de domaines théoriques progressistes tels que les nouvelles mobilités, la pensée relationnelle, les études sensorielles et de performance, les études biosociales et biopolitiques ainsi que les études scientifiques et technologiques. Les spécificités et les différences entre ces traditions et domaines mises à part, les approches posthumanistes ont en commun un scepticisme à l'égard de l'exceptionnalisme humain. Selon cette perspective, le sujet humain souverain est décentré, et ce faisant, le travail posthumaniste reconnaît les agences d'un éventail complet d'acteurs et de forces de natures humaines et non humaines. Reconnaisant le fait qu'il existe d'importantes « géographies à (la discipline de) la géographie », cette étude identifie et examine certains des principaux intérêts et thèmes posthumanistes qui ont émergé ces dernières années de manière discrète et organique dans la géographie canadienne, à savoir (i) les géographies posthumanistes indigènes; (ii) les géographies des animaux et de la nature; (iii) les géographies de la santé, du bien-être et du handicap; (iv) les géographies affectives et atmosphériques; et (v) les méthodologies non représentatives et créatives. L'étude se termine par quelques réflexions sur la nature et les points forts de la géographie posthumaniste canadienne et sur certaines possibilités de progrès futurs.

Mots clés : posthumanisme, théories non représentatives, assemblage, théorie des « affects », méthodologies

Introduction

The discipline of geography is far from “isotropic”—universal in form and spread out equally in all directions—there being very clear “geographies of geography.” In other words, empirical interests, theoretical approaches and methods in geography, and the structure and organization of geography vary, often greatly, from place to place. Even though as a global discipline in a networked digital world, geography involves international debates and some universally accepted norms and understandings, there will always be places of origin; places of expertise; places that drive agendas; places that resist change; places that are ahead of the game; places that are lagging behind; places where scholarship is advantaged, emphasized, and credited; and places where scholarship is disadvantaged, marginalized, and overlooked. In all of these contexts, places of course vary widely, ranging from institutions to cities to regions at various levels. Often, however, the most significant type and scale of place is the nation/country, this being a result of a range of powerful factors including common languages; national educational policy; funding and programing; national labour markets; and national representative associations, conferences, and academic journals—as well as by the difficult to pin down yet palpable national “cultures of research.” Historically there have been many examples where developments in geography at the national level have been relevant—whether this be, for example, the key contribution made by British geographers to the 1990s cultural turn, the way New Zealand geographers have contributed so significantly

to medical and health geography over many decades, or the ongoing strength of American quantitative research and its integration in environmental and other sciences, despite the closure of key geography departments in the United States (US) in the 20th century. But, of course, there does not necessarily have to have been a particular moment of national distinction or notoriety for there to be a national trend in geography that might be interesting, relevant, and a story to be told.

Acknowledging these important “geographies of geography,” in this paper we identify and review some of the key posthumanist interests and themes that have emerged over recent years in Canadian geography. The interest and focus on Canadian geography grew from the positionalities of ourselves as researchers—two British-born academics, one working at a Canadian institution, the other a PhD student undertaking an overseas visit to Canada.

In terms of methods, we visited the websites of all 50 geography programs and departments in Canada and searched the lists of active faculty and graduate students whose research might be considered to be broadly posthumanist. We also did our best to be as inclusive and comprehensive as possible by attempting to locate and review Canadian posthumanist geography with other origins, such as that by scholars working in non-geography departments, or by scholars working in other countries but focusing on Canada. Due to the nature of our method of categorization, we are aware that there is a danger that we have applied the “posthumanist” and “geography” categories to literature that authors might not identify as such.

We then categorized the literature we found (around 50 sources), produced by over 20 different scholars we identified, into broad theoretically informed empirical themes. We originally discussed categorizing them by geographical sub-discipline, but as we worked through the literature five clear themes emerged organically. Our process of categorization was an open one, and we worked in a rhizomatic way (inspired by Deleuzian methodologies). It was distinctly an “experiment with order and disorder, in which provisional and partial taxonomies [were] formed, but [were] always subject to change and metamorphosis, as new connections sparked among words, bodies, objects and ideas” (MacLure 2013, 181). Yet ultimately, our objective was to expose the nature of this increasingly important theoretical tradition in the Canadian academic context. We do, however, also draw on some non-Canadian work to provide context and theoretical insight.

Posthumanism in Canadian geography

There is a pervasive tone to these more-than-human-geographies. They are and feel rich, lively, enlivened, indeed vital; they seem to promise so much more excitement, energy, charge than was true of the supposedly ‘deadened geographies’ of work by older generations. These new geographies—these new ways of casting light upon the vibrating, gyrating, dancing geographies of the world, or many worlds—are enchanting, bewitching, seductive, chock-full of hope, optimism, of new politics and new ethics for new times. The additive textures of these new geographies seem addictive; heady, hedonistic substances with which to experiment in a whirl of new creative moments, scenes, memes and screens. (Philo 2017, 257)

Posthumanism is an ambiguous and general term (Lorimer 2009), signalling a number of different perspectives and traditions (Castree and Nash 2006). It is simultaneously an epoch, epistemological style, and an ontological condition (Ginn 2017). Within Canadian geography, posthumanist analyses have drawn on varied sub-disciplines, theories, and philosophical underpinnings including Indigenous knowledges (Sundberg 2014; Hoogeveen 2016; Yates et al. 2017; Vannini and Vannini 2019); feminist performativity theory (Geiger and Hovorka 2015; Mathews

2018); (neo)vitalism philosophies (Ruddick 2010); non-/more-than-representational theories (Hall and Wilton 2016; Andrews 2018b; Vannini and Vannini 2018); Foucauldian analyses of governmentality theory on biopolitics and biopower (e.g., Blue and Rock 2011; Collard 2012); queer theory (e.g., Nash and Gorman-Murray 2017); and assemblage and actor-network theories (e.g., Lepawsky and Mather 2011; Andrews 2018a; Evans et al. 2019). Moreover, “rhizomatic networks” of posthuman theoretical knowledge in Canadian geography have been cultivated in and around various institutions. For example, the University of Alberta hosts a network of interdisciplinary thinkers, directed by Rob Shields. As an urban geographer and sociologist, Shields has written extensively on Deleuze and other spatial theorists (see Shields 2005, 2012, 2018; Shields et al. 2013).

Fundamentally, the posthumanist turn in Canadian geography (as elsewhere) has sought to trouble the centrality of the human subject (Ginn 2017) and the discourse of humanism that separates humans from nature (K. Anderson 2014), to dissolve binary categories that have been central to humanist thought. It does so by thinking with a myriad of non-human and more-than-human others, including (but not limited to) animals, materials, and technologies. Indeed, by paying attention to more-than-human agencies and material forces, posthumanism emphasizes the ways that humans are continually produced in relation to them (Ginn 2017), and where the “capacity to create meaning and to affect and be affected extends beyond the human subject” (Blue 2016, 46). Notably, posthumanism challenges fundamental ontological understandings of the categories of space, place, time, and subject, in order to extend and trouble conceptualizations of social productions such as health (Andrews 2018a), the (human) body (Mathews 2018), and dis/ability (Stephens et al. 2015; Hall and Wilton 2016), to name but a few. Importantly, as indicated by the quotation that opened this section, and as will be explored in greater detail later, posthumanist geography focuses on and animates the vitality, energy, movement, and “push” of life. This is a departure from, and response to, humanistic geography’s preoccupation with meaning, language, and text, and their embalming, fixing affect.

Importantly, relational ethics are central to much posthumanist scholarship (Lorimer 2009), inviting

a situated, context-specific, and open-ended experimental approach (Ginn 2017). In Canadian geography, vitalist and process-orientated philosophies of Deleuze and Spinoza have been reapproached to meet contemporary troubles and challenges. Ruddick (2010, 2017), for example, proposes a “terra-ontology” to meet the crises of the Anthropocene, and works with an emancipatory assemblage to engage with difference and alterity that opens up the political potential of becoming (Anderson et al. 2012). Cockayne, Ruez, et al. (2017) and Cockayne et al. (2019) work with Deleuzian philosophy of “difference-in-itself” to offer a way of thinking about space and difference that resonates with political and ethical challenges located in embodiment and encounter. Elsewhere, scholars have evoked the ethical nature of assemblage to question what the body can do, and the capacities that are enhanced or diminished in relation to the dis/abling assemblage (Stephens et al. 2015).

In terms of structure, this review paper will first turn to the critiques of, and contributions to, posthumanist geographies through Indigenous knowledge and thought. As non-Indigenous, white settlers (one-long term resident, the other a short-term visitor), we acknowledge the indebtedness of posthumanist thought to Indigenous knowledge, and also our reliance, as individuals, on Euro-Western canons of academic knowledge—a reliance that has shaped the conception and writing of this review. In subsequent sections, we outline other themes that emerged: animal and natures geographies; health, wellbeing, and disability geographies; affective and atmospheric geographies; and non-representational and creative methodologies. We then conclude with thoughts on the nature and strengths of Canadian posthumanist geography, and on possibilities for future advancement.

Indigenous geographies

The posthumanist turn revolves around the central aim to displace the nature/culture and human/animal binary and the privileged position of the human that has been central to posthuman thought and scholarship, particularly in forms influenced by science and technology studies and actor-network theory. Yet, the ontological foundations of this central aim have been challenged by scholarship

that has drawn on Indigenous knowledges and decolonial movements. Sundberg (2014) has been at the forefront of this critique. By thinking with the performances of knowledge, she argues that the current posthumanist turn, along with Western intellectual traditions more generally, enacts both ontological violence and epistemological ignorance. Others, however, see a partial and situated commensurability between posthumanist and non-/more-than-representational theories and Indigenous knowledges, one that has implications for decolonial movements and activism through a “spatial politics of attentiveness” (Robertson 2017, 195).

Specifically, posthumanist geographies have been challenged for their reliance on Eurocentric scholarship (Sundberg 2014, 42; Todd 2016). Sundberg argues that posthuman thought remains firmly in a framework that seeks to overcome a foundational, universal split between nature and culture. Thus, “posthumanist texts enact universalizing claims and, as a consequence, reproduce colonial ways of knowing and being by further subordinating other ontologies.” Connected to this, she posits, is an epistemological ignorance (Dorries and Ruddick 2018), and silence about the location of knowledge—both the geohistorical and biographical location of the authors as well as the bodies of thought. The lack of involvement of other ontologies furthers this silence, as Eurocentric scholarship and thought becomes the only frame of reference which further enacts colonialist projects of knowledge production. Yet, much of the “posthumanist turn” is indebted to Indigenous thinking; a fact that is largely unacknowledged; even when it is, Indigenous thought is often filtered through white intermediaries as metaphors for Western concepts (Todd 2016; Dorries and Ruddick 2018). In response, Todd (2016, 7) sets a precedent to cite and quote “Indigenous thinkers directly, unambiguously and generously, as thinkers in their own right, not just disembodied representatives... [but as] dynamic Philosophers and Intellectuals.”

However, from a different perspective, Robertson (2017) uses a more-than-representational (MR) framework to explore the relational ontologies of Indigenous knowledge systems. In this section we are specifically using MR rather than non-representational theory, due to particular arguments made by Robertson and others in relation to terminology. Yet, elsewhere we use non-representational theory. His work highlights the ways that Indigenous knowledges have informed the development of MR

scholarship, and demonstrates the partial and situated commensurability between the two. Robertson values and works *with* Indigenous knowledge, and in doing so, acknowledges its contribution to MR geographies. It is a contribution that offers a more complex view on affect, health, spatial politics, and ethics (Robertson 2015; 2017; Robertson and Ljubicic 2019), and challenges the status quo of research on Indigenous populations, “to support and fund more practice-base activities on traditional territories” (Robertson 2017, 195). His work recognizes the links between Indigenous and MR approaches to embodied and affective forms of resistance, exploring the ways that modes of Indigenous attentiveness work to decolonize land and subordinate the colonial present so that “her mind and body are kept alive to a relational ontology that encourages ethical and political obligations to more-than-human collectives” (Robertson 2017, 194).

In an alternative vein, Sundberg (2014, 41) offers a performance of decolonizing posthuman geographies through the walking practices of the Zapatistas—offering “steps towards enacting ways of being in the world that advance posthuman politics as well as broader goals of decolonizing the discipline of geography.” Moreover, this work asks scholars to question their implication in ongoing colonial realities, both in our local institutions and throughout the globe (Cameron et al. 2014), as “each one of us is embedded in systems that uphold the exploitation and dispossession of Indigenous peoples” (Todd 2016, 15). Canadian scholarship has taken up Sundberg’s provocations. Yet, it is argued that this work should not be metaphorical, and it “cannot be easily grafted into pre-existing discourses/frameworks, even if they are critical” (Tuck and Yang 2012, 3). It is an ethical commitment to render visible the pluriversal nature of knowledge, and a refusal to “read the word(s) at face value” (Hoogeveen 2016, 360). Hence, in contrast to Robertson (2017), other projects work with an ethic of incommensurability, “which recognizes what is distinct, what is sovereign for project(s) of decolonization in relation to human and civil rights based social justice projects” (Tuck and Yang 2012, 28). For example, Dorries and Ruddick (2018) offer an incommensurable reading of the French philosopher Giles Deleuze and the Michi Saagiig Nishnaabeg writer Leanne Betasamosake Simpson. Their work offers a practice and method of reading in order to confront “cognitive imperialism.”

Elsewhere, Yates et al. (2017) explore the multiple ontologies of water (“as-a-resource” and “as-lifeblood”), water governance, and the political spaces in which these meet. Their work opens up a “problem space” for multiple worlds to intersect, and pays attention to the political processes and implications that emerge as they intermingle (Yates et al. 2017, 799). In another study, Hoogeveen (2016) explores the environmental regulation of fish and the scientific rendering of fish as disposable through the frameworks of critical Indigenous studies and critiques of posthumanism. Her work shows how Indigenous “ways of knowing” about fish and “fish-hood” are decentred in environmental management processes, and how these knowledges construct fish beyond the ontologies of science. Finally, Vannini and Vannini (2019) weave together stories about the vitality of wilderness from Indigenous scholars, research participants, and non-representational theorists to create a meshwork so that experiences of wilderness can be understood differently and more fully.

In this review we are centring Indigenous knowledge in Canadian posthumanist geography. Yet, we cannot ignore the fact that the uniqueness of Indigenous posthuman research to Canada is manifested through the colonial geographies of the Commonwealth, and the histories of British domination and imperialism. We “stay with the trouble” that our positionalities as white British-born academics pose in the writing of this review, in that we do not wish to (but may still) re-enact colonial dynamics of knowledge production. In the following section, we follow in the wake of discussions of “fish-hood” to the posthumanist studies on non-human animals and natures.

Animal and natures geographies

Canadian posthumanist geography has taken seriously the lives of animals; this is part of a wider appreciation of the importance of non-humans for the complexity of human life. Consequently, scholarship in “new” animal geographies is flourishing. In particular, work has drawn on feminist posthuman and non-representational theories to explore animal life, and the complexity of human-animal relations and the ways in which they constitute one another across multiple spatial and temporal dimensions (Blue and Rock 2011). Notably, Hovorka (2017, 383) offers a globalized and

decolonial animal geography in which we “open up [to] opportunities for expanding our ways of knowing, embracing subaltern perspectives, and allowing those silenced human and non-human voices to speak.” This is an approach that explores the “intimate and experienced set of lived and dwelt encounters with actual ‘critters’” (Buller 2013, 6), and “expose[s] the logics of exclusion and politics of abjection” (Hovorka 2015, 2). In a similar vein, Geiger and Hovorka (2015, 1113) explore the performative constitution of donkeys, or “becoming donkey,” in Botswana through the material-discursive practices that label them as companion animals—a label that brings relations of power through donkeys’ simultaneous marginalization in government policy, and mistreatment and overuse in people’s livelihood practices.

Other work has revealed the complexity and precarity of human-animal relations at a number of different scales. Collard has written a significant amount in this regard, tracing the cougar-human entanglements and more-than-human spatial practices through boundary making and securitization (Collard 2012); mapping the flows of giant pandas and oil to demonstrate the regimes of inclusion and exclusion of contemporary politics (Collard 2013); and following the commodification and decommodification of lively exotic companion animals (Collard 2014). Furthermore, notions of the public and the collective have been expanded to include the lives of animals, so that meaning-making practices go beyond the human, which renders a “more distributed political agency” (Blue 2016, 46). Blue, for example, explores the affective dimensions of *Bear 71*, a documentary that actively involves its audience in producing “contact zones” that enable “novel spaces for public judgement and ethical action” (Blue 2016, 43). In a similar vein, Vannini and Vannini (2018) point to the power that bushwalking and “walking off track”—the very material affordances of the ground, formation of landscape, and embodied capacities of movement—have in producing worldly transformations. Yet, as Collard (2014) cautions, in these engagements one must remain cautious of being overly celebratory of the intermingling and co-becoming of human-animal relations, as real consequences for animals are felt through these entanglements including death, violence, and exploitation.

The complex entanglement of human and animal bodies has implications for health. Blue and Rock (2011, 363) argue that we “can no longer speak and

think solely in terms of human relations when it comes to questions of health.” Hence, they develop the lens of trans-biopolitics to think through the BSE crisis in the United Kingdom (UK) and Canada, and in doing so they highlight the complexity of relations between species and show how knowledges about animal health interconnect with human health to render health a firmly posthuman achievement. This is extended in a review that persuasively argues for a “posthuman public health” (Rock et al. 2014)—one that takes seriously the non-human entities that have implications for health, including plants, animals, microbes, toxins, and technologies, to reconcile the humanist ethos that pervades public health. Posthumanism has been widely developed across the geographies of health, a trend that will be explored in the following section.

Health, wellbeing, and dis/ability geographies

Recently, great attention has been paid to Deleuzian theories in health geography to expand core concepts of health, wellbeing, and dis/ability, and a sizable portion of this work has been taking place in Canadian geography. By thinking with assemblage and affect, the relational constitution of health and wellbeing recognizes the myriad human, non-human bodies and objects involved in the becoming or retreating of health (Andrews 2018a). In this vein, health is not a prior state but rather a dynamic and relational constitution, one that produces new relations and consequently new bodily capacities “to affect and to be affected” (B. Anderson 2014, 9; Gorman 2017). To paraphrase abundant previous description across human geography, affect is an infectious inter-body process that involves affecting and being affected—resulting, like a quick acting “nutrition” or “toxin,” in increases or decreases in individual and collective bodily energy and participation. Affect, in this sense, is the transpersonal or pre-personal forces that emerge which cause bodies to act or be moved by another (Anderson 2009; Hall and Wilton 2016). Ultimately it is a somatic, less-than-fully conscious felt intensity of involvement with the environment, or with ecology.

Specifically in empirical work, the concept of “enabling places” (deriving from actor-network theory

and therapeutic landscape literature) has been deployed to imagine a posthuman space in which health is an activity achieved via social, affective, and material resources (Duff 2011). Evans et al. (2015), for example, use the enabling places framework to investigate a managed alcohol program in Ontario, Canada, mapping the process of recovery for service users through three actor-networks: togetherness, awareness, and self-management. Relatedly, Evans et al. (2019) recently employed assemblage thinking to explore the form and function of service hubs in Edmonton, Canada. Elsewhere, affective dimensions of health are taken seriously—bringing attention to the relational capacities of the body and the ways they interact with others (Andrews et al. 2014), and to the intentional creation of certain affective atmospheres that are conducive to healing. Andrews et al. (2013), for example, explore the engineering of positive, warm affects to create atmospheres conducive to wellbeing and healing in holistic therapies. The production of positive affects are further explored through moments of wellbeing generated by popular music (Andrews 2014). Finally, and most recently, Andrews (2019) investigates the affective qualities of domestic, social, and medical spaces experienced by those with Type I Chiari Malformation, revealing the ways these spaces were (re)approached and (re)negotiated through the development of the condition. Although not explicitly health geography, Simandan (2018, 8) thinks through the potential that surprise has for subjective wellbeing and its affective, “awakening” potential, which constitutes as “occasions for experiencing emotions, and thus experiencing what it means to be human, and to be alive.”

In the geographies of disability, Hall and Wilton (2016) employ posthumanist and non-representational theories to extend and challenge the current thinking in the sub-discipline. In doing so, their work carries “important opportunities to think differently about how all bodies become dis/abled in and through their everyday geographies and how such becomings might be made otherwise” (Hall and Wilton 2016, 3). In this vein, Stephens et al. (2015) explore the flexible becoming of children with disability, and show how assemblages enable and constrain the emergence of subjects and capacities in children's everyday spaces, so that “subjective experiences of both disability and non-disability emerge through shifting relations with other bodies, objects and spaces” (Hall and Wilton 2016, 6). In posthumanist

geographies of disability, asking “what can a body do?” is an ethical question that does not close down possibilities for becoming limited by a priori assumptions about bodily capacities deriving from social or biological models of disability, but instead seeks to uncover the ways individuals are constituted and emerge through negotiations in and with their everyday geographies. For example, Stephens et al. (2015) focus on the contexts of disabled children's geographies of falling and crawling, the adaptations that are employed, and the ways the children individually negotiate these.

Canadian research has made a substantial contribution to the project of furthering posthumanism in health geography. In this work, affect has been explored using a distinctly Deleuzian-Spinozian lens in the geographies of health and disability to convey bodily capacities that are emergent through relations in an assemblage. In the next section, we will draw on work that attends to affect and affective atmospheres as collective conditions emerging from geographical reworkings of Deleuze and conversations with Raymond Williams’ “structures of feeling” (Williams 1977; Anderson 2009, 2014).

Affective and atmospheric geographies

Building on our earlier definition of affect, here we begin with the notion that affects are collective, in that “capacities to affect and be affected are always mediated in and through encounters” (B. Anderson 2014, 105). These collective affective atmospheres become the conditions that shape the way life is lived and organized, and are ambiguous so that they “occur before and alongside the formation of subjectivity, across human and non-human materialities, and in-between subject/object distinctions” (Anderson 2009, 78).

A small body of work in Canadian geography has explored the ways in which affect can be operationalized by late capitalism—both in affective consumption, and in the ways in which affects circulate in and shape modes of production. Notably in this regard, Cockayne (2016) investigates entrepreneurial modes of work in digital media in San Francisco. His work demonstrates the ways that affects act as a driving force in processes of accumulation, and the ways that individuals adhere to particular modes of production so that

attachments to normative working conditions are (re)produced. Entrepreneurial modes of work are shown to produce particular ambivalent affects of passion, love, and satisfaction, and attachments to these affectual conditions are rendered a form of “cruel optimism” (Berlant 2011) under precarious forms of labour. Precarity is extended beyond economic forms to affective conditions, which equates “life” as “work” under the logic of late capitalism (Cockayne 2016). Affective feelings of precarity and insecurity are also dealt with in Worth’s (2016) work on Millennial women in employment. She demonstrates the ways that affective conditions are social and relational, shaping the means by which young women navigate their working lives as their decision making is informed by the experiences of those close to them who are attempting to navigate the labour market, as well as their previous and anticipated future individual experiences.

Other work traces the transnational flows of affect. Mountz (2017, 75) coins the term “affective eruptions” to think through the ways that trauma moves in, through, and beyond detention facilities, “revealing moments wherein past erupts into the present” to render “more visible the haunting of geopoliticized fields of power.” Here, affective qualities “exceed the ensembles from which they emanate” (B. Anderson 2014, 160). They take on a life of their own and forming a connective tissue that collapses the past into the present (Mountz 2017). Elsewhere, Pratt and Johnston (2017) consider the transnational flows of empathy in their play, *Nanay*, which invites audiences to think critically about migration of women from the Global North by experiencing monologues informed by the interviews and testimonials of Filipino domestic workers, their children, and Canadian employers. The affective qualities of work and the transmission of empathy serves as a political intervention, producing feelings of discomfort in audiences when existing assumptions are challenged, and the suffering on which a good life depends is witnessed.

Elsewhere, Davidson et al. (2013) offer a substantial investigation of the relationships between ecology and affect. Their volume is shaped around three affects: nostalgia, desire, and hope, all of which demonstrate the capacities of ecologies to affect and be affected, and all of which operate on a range of scales. For example, Shields’ chapter on Las Vegas explores the affective economy of The Strip,

the ways in which it manifests both as an urban form as well as a social one. He demonstrates the paradox of Las Vegas, in its imagined geography as a place of escape, one that is thoroughly shaped by the everyday unequal conditions of social, economic, and cultural life.

Canadian posthumanist geography has dealt with collective affects in their difference, difficulty, and emergence, offering important examples of how affects structure life and afford individuals capacities to act. This affectual work is distinctly political, going beyond a rendering of affect as “masculinist, technocratic and distancing” (Thien 2005, 452), to the feelings of precarity rendered through the affective conditions of neoliberalism and the experiences of historical trauma. In the next section, provoked by Pratt and Johnston’s (2017) play, *Nanay*, we discuss the turn towards creativity in Canadian geographical methodologies.

Non-representational and creative methodologies

Non-representational methodologies seek novelty and experimentation to capture the ephemeral, fleeting, and affectual, and give life to the inanimate and more-than-human (Vannini 2015a, 2015b). Methodologies seek to enliven “dead geographies” (Thrift and Dewsbury 2000; Vannini 2015b) by evoking an ethic of novelty and a sensibility of surprise and wonder, to capture the affectual, and step out of habitual modes of existence. Methodological enchantment and enlivening is found through a diversity of work in Canadian geography—for example, that on electronic waste and ethnographic surprise (Lepawsky et al. 2015); the surprise of “field philosophy” in animal worlds (Buchanan 2018); and the sensibilities of wonder in non-representational health geographies (Andrews 2018b).

These enlivening methodologies have provoked a multitude of doings, those that go beyond the normative conventions of social science and delve into the humanities and creative arts (de Leeuw 2012; Johnston and Pratt 2014; Vannini 2015c; Buiani 2018; Andrews 2019). The term “creative geographies” has been coined to collect together these interventions, describing the discipline’s “creative re/turn” (de Leeuw and Hawkins 2017, 305; Marston and de Leeuw 2013). Creative methodologies have become particularly salient in a conceptual landscape

dominated by non-representational theory. Notably, Vannini and collaborators have been experimenting with, and intervening in, video-based methodologies (Vannini 2015a)—including mobile video ethnographies (Vannini 2017), multi-sited visual fieldwork (Vannini and Vannini 2018), and documentary (Taggart 2015)—to evoke the more-than-textual, more-than-human, and multi-sensual. In health geography, Andrews (2019) uses an ad-hoc photography methodology to capture the sensory experience of those living with Type I Chiari Malformation. In cultural geography, Patchett and Lozowy (2012) employ photography to pursue a critical and political engagement with Oil Sands, the world's largest capital oil project.

de Leeuw and Hawkins (2017) put the creative (re) turn in dialogue with critical geographies, to challenge and extend current creative praxis—one that would include feminist, queer, anti-racist, and anti-colonial perspectives along with posthuman concerns of life and lives on earth. For them, critical creative geographies has the “potential to challenge and change not just how we conduct research and create knowledge, but also how we live on the earth” (de Leeuw and Hawkins 2017, 307). In a similar vein, Marston and de Leeuw (2013, xx) considered the “overt politicization” of creative-critical methodologies and interventions, “drawing attention not only to the political work these creative expressions do in the world, but also how they partake in and critique the politics of the production of knowledge.”

Most prominently, critical-creative methodologies inform the aforementioned work of Pratt and Johnston (2017), whose testimonial production, *Nanay*, sought to raise public awareness about Canada's Live-In Caregiver Programme, in order to “scramble existing identifications and open a space for new ideas and political alignments” (Johnston and Pratt 2014, 3). Their work in translating the play for a Filipino audience engaged with the challenges and possibilities of the transnational circulation of affects. Also, Enigbokan and Patchett (2012) offer reflections on their critical-creative-experimental praxis of *Terrible Karma*, an installation in downtown Manhattan. In offering alternative forms of knowledge production, the installation had a dual purpose: to mark the anniversary of the Triangle factory fire and to explore the contemporary conditions of garment workers. Yet, the authors reflect on the challenges of collaboration, and raise some important questions around the structural and

working conditions for academics taking part in these critical-creative-experimental interventions.

Other notable critical-creative methodological interventions have been in the form of creative writing, such as poetry (de Leeuw 2012, 2017; de Leeuw and Hawkins 2017) and storytelling (Cameron 2012; Sundberg 2013). Yet, the turn towards storytelling in non-representational and post-phenomenological literature to evoke “affect through story” has been troubled for its lack of overt engagement with the political consequences of the knowledge that these stories produce (Cameron 2012). The stories Cameron speaks of come from the bodies and autoethnographic experiences of *particular* authors: namely white, male, British academics; she warns that “we must be careful about where we direct our attention and what stories we come to be touched by” (Cameron 2012, 585). In a critical and reflexive vein, Mathews (2018) writes an intimate feminist embodied autoethnography of her affective experiences with breastfeeding in public spaces in Saskatchewan. Her work acknowledges her relatively privileged positionality and the location of knowledge produced, whilst providing “alternative sites and surfaces for theorizing the body as flesh and fluid in public space” (Mathews 2018, 15).

An example of critical-creative writing can be found in de Leeuw's (eco)poetry, most prominently “Geographies of a Lover” (de Leeuw 2012) and her scholarship on “writing as righting” (de Leeuw 2017). Her work is reflexive, critical, and situated—not claiming a universal or rational standpoint. In “Geographies of a Lover,” attention is given to the “messy, fleshy, organic and orgasmic bodies” (de Leeuw and Hawkins 2017, 317); the piece evokes a feminist politics and poetics of responsibility in engaging with a world in ecological crisis. The text is resolutely posthuman in that it recognizes human kinship with the non-human world, alongside the vital materialism that connects humans and non-humans. Elsewhere, Patchett (2016) offers a “storying of practice” through the long durée of the craft of taxidermy. By combining her approach with non-representational and Ingoldian theories, her methodology stitches together ethnographies of craft with historical taxidermy “how-to” manuals.

Creative methodologies are clearly flourishing across Canadian geography. This section has shown the need for a critical engagement with creative interventions and engagements across the discipline.

Their capacity to affect audiences and produce new knowledges means that authors, poets, practitioners, and academics need to be careful about the kinds of stories told, to locate those stories to avoid universalizing experience (Sundberg 2013), and to interrogate the political and intellectual implications of the aforementioned approaches (Cameron 2012).

Conclusion

In terms of coverage, although the previous sections showcase the breadth of posthumanist Canadian geography, there are always going to be themes and studies that do not fit in any typology. Notably, a small and important body of work has taken up a posthuman queer, intersectional, and feminist lens to interrogate notions of sexuality and gender. Notably, Nash and Gorman-Murray (2017, 125) trace the actualization of queer assemblages as the “constitution of unstable and mobile bodies and practices (visibly) traversing unbounded, temporary yet specific ‘queer spaces,’” and offer a conceptualization of gender and sexuality as transient and unstable, constituted by intercorporeal events and encounters between bodies and spaces. Relatedly, Cockayne, Leszczynski, et al. (2017) explore the digitally mediated spaces of intimacy that extend the spatiality of intimate encounters through the enrolment of a plethora of non-human others.

In terms of identity, of course, as suggested it is not certain whether all the scholars cited in this review would identify as posthumanists or consider their work as posthumanist. It might be that they prefer to associate with their more specific posthumanist theories and concepts or perhaps identify with other, or allied, theoretical traditions, or their sub-disciplines or empirical fields. Even for those who clearly recognize posthumanism in their work, there have been persuasive arguments and preferences for alternatives that are thought to be more inclusive and not such radical departures—such as “more-than-human” geography (Whatmore 2006), “more-than-representational” geography (Lorimer 2005), and others that stress process and outcomes such as vital geographies (Kearns and Reid-Henry 2009).

In terms of strength, one could claim that the posthumanist turn in Canadian geography has been strong, particularly if one compares the situation to the US and countries with far larger

numbers of academic geographers and geography departments, and also in comparison to the developing world. On the other hand, few would suggest that it has been as all-embracing and thorough as in the UK, for example, where there has been a veritable sea-change. Indeed, in comparison to the UK, “understated” is also an appropriate description for Canadian posthumanist geography. Canada has lacked the specific departments, groups, and landmark position papers that are forwarding, often loudly, particular posthumanist agendas. However, the second author acknowledges to being quite insistent about the posthumanist agenda at times. Still, roughly speaking, there is now on average roughly one posthumanist scholar for every other geography department/program in Canada, and more in the making given the popularity with graduate students: not anything like levels in the UK, but still substantive.

In terms of the future, research attention could be paid to four areas. First, attention should be directed to negative/dark posthuman emergences. As Philo (2017) notes, just as posthuman life can grow, amplify, push, attract, and involve people physically and psychologically, it can also stunt, silence, impede, repel, and exclude them in these ways—chipping away at them little by little and thereby breaking their spirit. Research has not been as thorough in discussing these issues.

Second, bigger-picture changes, politics, and challenges could be explored, including the question of what constitutes posthuman Canadian life? In other words, how and in what ways has Canadian life been opened up to varying more-than-human assemblages of algorithmic automation, digital cultures, and technological proliferation including biotechnologies. Moreover, to what affective forces and alluring synthetic textures has the Canadian subject in particular been exposed, and how has that exposure affected their experiences and behaviours?

Third, attention is needed to posthumanism in the teaching of geography at the undergraduate and graduate levels. How does it fit into curriculum and what particular classroom and field techniques might that involve? Inevitably readers will find their own particular priorities, adding to a vibrant and far-reaching posthumanist turn.

Fourth, further attention is needed to the “geographies of geography” in and beyond Canada. This paper grew out of academic interest in posthumanism, curiosity, and our positionalities as

British-born Canadian residents. There would be merit in furthering the discussion of the “geographies of geography” to other countries, knowledge clusters, concepts, and theoretical advances. We believe that the geographies of academic knowledge production deserve further investigation.

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